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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/664,929	SMITH ET AL.
	Examiner	Art Unit	
	Farhan M. Syed	2165	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>22 September 2003</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-31</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>09/22/2003</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)):

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <s>20060922</s> 1/25/04

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-31 are pending.

Drawings

2.   The drawings are objected to because in Figure 5, the items are not numbered in the drawings and should be reflected in the specifications. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

3.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4.   Claims 1-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-47 of co-pending application no. 10/665,359. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are substantially similar in scope and use the same limitations.

Claims 1-47 of 10/665,359 reference recites all the elements of claims 1-31 of the instant application 10/664,929. The scope of 10/665,359 as recited in the claims 1-47 is a method of associating a resource with a geographical location to which the

resources relates where the method determines the location information associated with

the users that access the resources, performing a cluster analysis based on the location

information, collecting location information, determining a plurality of locations

associated with the users that access the resource, and analyzing the determined

location to determine geographical relevance. The scope of 10/664,929 as recited in

claims 1-31 is a method for clustering by address, comprising of receiving a search

query, obtaining geographical identifiers, identifying documents associated with the

address located within the area of interest, determining if the result matches one or

more keywords as relevant documents, and grouping the relevant documents into a

cluster. The difference between the inventions is that the instant application 10/664,929

is a method for clustering by address and application no. 10/665,359 is a method of

associating a resource with a geographical location. The reason why a person of

ordinary skill in the art would conclude that the invention defined in claims 1-31 of

application no. 10/664,929 is that it would have been an obvious variation of the

invention defined in claims 1-47 of application no. 10/665,359. In light of these factual

determinations, Based on the ordinary skill pertinent in the art and is as such obviousis

and as such anticipates claims 1-31 of the instant application.

This is a <u>provisional</u> obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-14, 16-19, 25-33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Schultz et al (U.S. Pat. Pub. 2003/0061211 and known hereinafter as

Shultz) in view of Michalewicz et al (U.S. Pat. Pub. 2002/0042789 and known

hereinafter as Michalewicz).

As per claim 1, 27-30, 32, and 33, Shultz teaches a method for clustering by

address, comprising: receiving a search query that includes one or more keywords (i.e.

"The general information query may include one or more criterion about a particular entity or type of entity

such as: a business name, category of business, a specific GIS location, a product name, a brand name,

a service name, pricing criterion, a time criterion, an event criterion, a service category, or combinations

thereof." The preceding text clearly indicates that a search query is the general information query that

includes one or more keywords, which are particular entity or type of entity such as: a business name,

category of business, a specific GIS location, a product name, etc.)(Page 4, paragraph 48); obtaining

one or more geographical identifiers (i.e. *"Geographic criteria may also include the geographic*

area within a specified zip code, an area code, or the area defined by a specific radius from the location

data, such as a street address, zip code, area code, state, longitudinal and latitudinal coordinates, any

unified geocoding system, state planar coordinates, or combinations thereof." The preceding text clearly

indicates that a geographical identifier is a geographic criteria, of which one or more may be combined

together.)(Page 1, paragraph 12); identifying an area of interest based, at least in part, on the

one or more geographical identifiers (i.e. *"... searching a geographic information database and an*

information system database for information corresponding to the geographically defined query..." The

preceding text clearly indicates that identifying an area of interested is the result of the information

corresponding to the geographically defined query, and one or more geographical identifiers are

contained within a geographically defined query.)(Page 1, paragraph 12); identifying documents that

are associated with addresses located within the area of interest (i.e. *"In yet another aspect*

of the present invention, the method may also include: identifying multiple search results corresponding to

the specified geographic area, and sorting the search results utilizing at least one sorting criterion

selected from the group comprising: distance from a selected geographic location, time, price, and

alphabetical order, and wherein the query is at least one entity criterion chosen from the group comprising

name, brand name, product type, product category, service name, service category, business name,

event, event forum, price, time, and/or combinations thereof." The preceding text clearly indicates that

identifying documents are search results and address located within the area of interest is the specified

geographic area.)(Page 2, paragraph 18); determining ones of the identified documents that

match the one or more keywords as relevant documents (i.e. *"...receiving a query from an*

associated user, searching for at least one search result, identifying the at least one search result

corresponding to a specified geographic area, and providing the at least one identified search result to the

associated user." The preceding text clearly indicates that one or more keywords are contained in a query

that corresponds to a specified geographical area and identifying documents are at least one identified

search result.)(Page 2, paragraph 17).

Shultz does not explicitly teach the method of grouping the relevant documents

into clusters based, at least in part, on the addresses located within the area of interest;

and presenting the clusters.

Michalewicz teaches the method of grouping the relevant documents into

clusters based, at least in part, on the addresses located within the area of interest (i.e.

"The retrieved documents are divided into subsets of similar documents, where each subset of the

subsets of similar documents is described in terms of a subset pattern. An ordered list of clusters is

provided based on the subset pattern of each subset of similar documents." The preceding text clearly

indicates that grouping the relevant documents into clusters are the retrieved documents are divided into

subsets of similar documents and at least in part on the address located within the area of interest is a

type of subset pattern.)(Page 3, paragraph 33); and presenting the clusters (i.e. *"The ordered list of*

clusters includes separate clusters which contain similar documents retrieved in response to the query."

The preceding text clearly indicates that the for a response to the query by the user is generally a display

of results, which in this case, the clusters are presented to the user.)(Page 3, paragraph 33).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

to include the method of grouping the relevant documents into clusters based, at least in

part, on the addresses located within the area of interest; and presenting the clusters

with the motivation to search by a specific, user-defined geographical area. (Shultz, page

1, paragraph 8).

As per claim 2, Shultz teaches the method wherein the geographical identifiers

are received as part of the search query (i.e. *"User query 202 may preferably include (i) location*

data, (ii) a general information query (e.g., subject matter desired), and/or (iii) geographic criteria." The

preceding text clearly indicates that a geographical identifier, which is a geographic criteria, is part of the

search query, which is the user query.)(Page 4, paragraph 46).

As per claim 3, Shultz teaches the method wherein the geographical identifiers are inferred independent of the search query (i.e. *"User query 202 may preferably include (i) location data, (ii) a general information query (e.g., subject matter desired), and/or (iii) geographic criteria."* The preceding text clearly indicates that a geographical identifier, which is a geographic criteria, is inferred independent of the search query, as it may or may not be part of the user query.)(Page 4, paragraph 46).

As per claim 4, Shultz teaches the method wherein the one or more keywords relate to a business or organization (i.e. *"The general information query may include one or more criterion about a particular entity or type of entity such as: a business name, category of business, a specific GIS location, a product name, a brand name, a service name, pricing criterion, a time criterion, an event criterion, a service category, or combinations thereof."* The preceding text clearly indicates that one or more keywords are one or more criterion.)(Page 4, paragraph 48).

As per claim 5, Shultz teaches the method wherein the one or more geographical identifiers include location-specific information that approximately identifies a location of the business or organization (i.e. *"For example, user query 202 can be limited to those results (e.g. businesses) that are located in a defined geographic area. For example, the geographic area may be a city, county, state, country, radial distance, or geometric corridor."* The preceding text clearly indicates that a city, county, state, country, radial distance, or geometric corridor is an example of location specific information that approximately identifies a location.)(Page 4, paragraph 49).

As per claim 6, Shultz teaches the method wherein the one or more geographical identifiers include at least one of a partial address, a partial telephone number, an entire

address, and an entire telephone number (i.e. *"Geographic criteria may also include the geographic area within a specified zip code, an area code, or the area defined by a specific radius from the location data, such as a street address, zip code, area code, state, longitudinal and latitudinal coordinates, any unified geocoding system, state planar coordinates, or combinations thereof."* The preceding text clearly indicates that a geographical identifier is a geographical criteria that include a partial address, a partial telephone number, an entire address, an entire telephone number, zip code, area code, etc.)(Page 4, paragraph 49).

As per claim 7, Shultz teaches the method wherein the identifying an area of interest includes: determining a geographic location based, at least in part, on the one or more geographical identifiers, determining a geographic center of the geographic location, and identifying locations within a certain distance of the geographic center as the area of interest (i.e. *"For example, if the user query (step 202) included steak houses near a desired map location, and one or more matching records of the search result did not fall within the currently displayed user map region, the area of displayed map may be updated (automatically or upon user selection) to accommodate the returned result within the displayed map region (step 242)."* The preceding text clearly illustrates that returning a query result for a steak house near a desired map locations indicates that a geographical location is determined, where the geographical identifier is the geographical location; the map location is the geographical center of the geographical location, as one or more of the matching records is determined if the record falls within the map region, and identifying location is displaying one or more matching records.)(Page 5, paragraph 62).

As per claim 8, Shultz teaches the method wherein the identifying locations includes: determining a radius, and identifying the area of interest as a circle centered on the geographic center with the determined radius (i.e. *"Geographic criteria may also include*

the geographic area within a specified zip code, an area code, or the area defined by a specific radius

from the location data, such as a street address, zip code, area code, state, longitudinal and latitudinal

coordinates, any unified geocoding system, state planar coordinates, or combinations thereof. In addition,

the search results can be limited and/or sorted to those results that are in closest proximity to the location

data. For example, if the user enters or spatially designates his home street address as the location data,

then he can request that the ten search results in closest proximity to his home be provided." The

preceding text clearly indicates that determining a radius is an area defined by a specific radius from the

location data, which is also the area of interest.)(Page 4, paragraph 49).

As per claim 9, Shultz teaches the method wherein the radius is one of a

predetermined radius and a radius set based on a specificity of the one or more

geographical identifiers (i.e. *"Geographic criteria may also include the geographic area within a*

specified zip code, an area code, or the area defined by a specific radius from the location data, such as

a street address, zip code, area code, state, longitudinal and latitudinal coordinates, any unified

geocoding system, state planar coordinates, or combinations thereof. In addition, the search results can

be limited and/or sorted to those results that are in closest proximity to the location data. For example, if

the user enters or spatially designates his home street address as the location data, then he can request

that the ten search results in closest proximity to his home be provided." The preceding text clearly

indicates that determining a radius is an area defined by a specific radius from the location data, which is

also the area of interest.)(Page 4, paragraph 49).

As per claim 10, Shultz teaches the method wherein the radius is a user-

configurable radius (i.e. *"Geographic criteria may also include the geographic area within a specified*

zip code, an area code, or the area defined by a specific radius from the location data, such as a street

address, zip code, area code, state, longitudinal and latitudinal coordinates, any unified geocoding

system, state planar coordinates, or combinations thereof. In addition, the search results can be limited

and/or sorted to those results that are in closest proximity to the location data. For example, if the user

enters or spatially designates his home street address as the location data, then he can request that the

ten search results in closest proximity to his home be provided." The preceding text clearly indicates that

determining a radius is an area defined by a specific radius from the location data, which is also the area

of interest.)(Page 4, paragraph 49).

As per claim 11, Shultz teaches the method wherein the radius is dynamically set

based, at least in part, on the one or more keywords (i.e. *"Geographic criteria may also include*

the geographic area within a specified zip code, an area code, or the area defined by a specific radius

from the location data, such as a street address, zip code, area code, state, longitudinal and latitudinal

coordinates, any unified geocoding system, state planar coordinates, or combinations thereof. In addition,

the search results can be limited and/or sorted to those results that are in closest proximity to the location

data. For example, if the user enters or spatially designates his home street address as the location data,

then he can request that the ten search results in closest proximity to his home be provided." The

preceding text clearly indicates that determining a radius is an area defined by a specific radius from the

location data, which is also the area of interest.)(Page 4, paragraph 49).

As per claim 12, Shultz does not explicitly teach the method wherein the

identifying documents includes: accessing a database that associates documents from

a repository of crawled documents to addresses associated with the documents.

Michalewicz teaches the method wherein the identifying documents includes:

accessing a database that associates documents from a repository of crawled

documents to addresses associated with the documents (i.e. *"To create any dialog with the*

user and to provide the user with a chance to find anything, the following should be provided: crawl the

Web and collect some information about found pages (or even contents of pages), [0165] do some heavy

processing on the collected data to make on-line interactions with the user as fast and adequate as

possible, be able to interpret the user's queries and give him/her appropriate answers using collected and

processed data, be able to communicate with the user. These functions provide a division of the whole

search engine of the present invention into four basic modules: the Spider, the Data Preparation, the

Dialog Control and the User Interface 400 (as discussed above)." The preceding text clearly indicates that

information stored in the database are crawled documents.)(Page 9, paragraphs 163-168).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

to include the method wherein the identifying documents includes: accessing a

database that associates documents from a repository of crawled documents to

addresses associated with the documents with the motivation to search by a specific,

user-defined geographical area. (Shultz, page 1, paragraph 8).

As per claim 13, Shultz teaches the method further comprising: scoring the

relevant documents based on at least one of a distance factor and a relevancy factor

(i.e. "Any of these types of matching information may subsequently be sorted according to user

preference and/or a predefined search result sorting routine. Such sorting may pertain to specific sorting

criteria, for example, by order of importance, relevance or hierarchy of the information retrieved from

database 133. Example sorting criterion might include, a distance from the user identified location (e.g.,

step 232), corresponding advertising information (e.g., step 234) and/or business information (e.g., step

236). Business information may be sorted according to various criteria, for example, alphabetical criteria,

such as by the name of the business, size criteria, such as the size of the business, price criteria, time

criteria, event criteria, or any other sorting criteria that might be helpful to a user.")(Page 5, paragraph 60).

As per claim 14, Shultz teaches the method wherein the distance factor for one

of the relevant documents refers to a distance that an address associated with the one

of the relevant documents is from a geographic center of the area of interest (i.e. *"Any of*

these types of matching information may subsequently be sorted according to user preference and/or a

predefined search result sorting routine. Such sorting may pertain to specific sorting criteria, for example,

by order of importance, relevance or hierarchy of the information retrieved from database 133. Example

sorting criterion might include, a distance from the user identified location (e.g., step 232), corresponding

advertising information (e.g., step 234) and/or business information (e.g., step 236). Business information

may be sorted according to various criteria, for example, alphabetical criteria, such as by the name of the

business, size criteria, such as the size of the business, price criteria, time criteria, event criteria, or any

other sorting criteria that might be helpful to a user." The preceding text clearly indicates a distance that

an address associated with one of the relevant documents is from the geographical area of interest is the

distance from the user-identified location.)(Page 5, paragraph 60).

As per claim 16, Shultz does not explicitly teach the method wherein the

grouping the relevant documents into clusters include: forming a separate one of the

clusters for each of the addresses located within the area of interest.

Michalewicz teaches the method wherein the grouping the relevant documents

into clusters includes: forming a separate one of the clusters for each of the addresses

located within the area of interest (i.e. *"The retrieved documents are divided into subsets of similar*

documents, where each subset of the subsets of similar documents is described in terms of a subset

pattern." The preceding text clearly indicates that each of the addresses located within the area of interest

is a subset pattern.)(Page 3, paragraph 33).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

to include the method wherein the grouping the relevant documents into clusters

includes: forming a separate one of the clusters for each of the addresses located within

the area of interest with the motivation to search by a specific, user-defined

geographical area. (Shultz, page 1, paragraph 8).

As per claim 17, Shultz does not explicitly teach the method wherein the

grouping the relevant documents into clusters includes: identifying a first one of the

addresses associated with a first one of the relevant documents, determining one or

more second ones of the relevant documents that are also associated with the first

address, and grouping the first relevant document and the one or more second relevant

documents into a cluster.

Michalewicz teaches the method wherein the grouping the relevant documents

into clusters includes: identifying a first one of the addresses associated with a first one

of the relevant documents, determining one or more second ones of the relevant

documents that are also associated with the first address, and grouping the first relevant

document and the one or more second relevant documents into a cluster (i.e. "In step 605,

the user identifies keywords or presents a complete query (e.g., house AND project). The documents will

be retrieved (from the database) on the basis of these keywords (index match). In step 610, the query

and/or keywords are analyzed and a "pattern" is created. In step 615, the database is searched for

documents which match the pattern. In step 620, the retrieved documents are divided into subsets of

similar documents, where each subset is described by its own pattern. In other words, the process

creates an ordered list of clusters. In step 625, the user is provided with an initial solution proposal." The

preceding text clearly indicates that a first one of the relevant documents is the index max and the next

one or more second ones of the relevant document are the pattern results that is created by the query, in

which both results are placed into an ordered list of clusters.)(page 7, paragraph 132).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

to include the method wherein the grouping the relevant documents into clusters

includes: identifying a first one of the addresses associated with a first one of the

relevant documents, determining one or more second ones of the relevant documents

that are also associated with the first address, and grouping the first relevant document

and the one or more second relevant documents into a cluster with the motivation to

search by a specific, user-defined geographical area. (Shultz, page 1, paragraph 8).

As per claim 18, Schultz does not explicitly teach the method wherein the

grouping the relevant documents into clusters include: placing each of the relevant

documents into at least one cluster.

Michalewicz teaches the method wherein the grouping the relevant documents

into clusters includes: placing each of the relevant documents into at least one cluster

(i.e. *"In step 605, the user identifies keywords or presents a complete query (e.g., house AND project).*

The documents will be retrieved (from the database) on the basis of these keywords (index match). In

step 610, the query and/or keywords are analyzed and a "pattern" is created. In step 615, the database is

searched for documents which match the pattern. In step 620, the retrieved documents are divided into

subsets of similar documents, where each subset is described by its own pattern. In other words, the

process creates an ordered list of clusters. In step 625, the user is provided with an initial solution

proposal." The preceding text clearly indicates that relevant documents, which are pattern results are placed into clusters.)(page 7, paragraph 132).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz to include the method wherein the grouping the relevant documents into clusters includes: placing each of the relevant documents into at least one cluster with the motivation to search by a specific, user-defined geographical area. (Shultz, page 1, paragraph 8).

As per claim 19, Schultz does not explicitly teach the method wherein the grouping the relevant documents into clusters include: placing at least one of the relevant documents into a plurality of the clusters.

Michalewicz teaches the method wherein the grouping the relevant documents into clusters includes: placing at least one of the relevant documents into a plurality of the clusters (i.e. *"In step 605, the user identifies keywords or presents a complete query (e.g., house AND project). The documents will be retrieved (from the database) on the basis of these keywords (index match). In step 610, the query and/or keywords are analyzed and a "pattern" is created. In step 615, the database is searched for documents which match the pattern. In step 620, the retrieved documents are divided into subsets of similar documents, where each subset is described by its own pattern. In other words, the process creates an ordered list of clusters. In step 625, the user is provided with an initial solution proposal."* The preceding text clearly indicates that a plurality of clusters is an ordered list of clusters.)(page 7, paragraph 132).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

to include the method wherein the grouping the relevant documents into clusters

includes: placing at least one of the relevant documents into a plurality of the clusters

with the motivation to search by a specific, user-defined geographical area. (Shultz, page

1, paragraph 8).

As per claim 25, Shultz does not explicitly teach the method wherein the

presenting the clusters includes: forming a result output for each of the clusters, the

result output including at least one of a title and a snippet for one of the relevant

documents in the cluster and a title for another one or more of the relevant documents

in the cluster.

Michalewicz teaches the method wherein the presenting the clusters includes:

forming a result output for each of the clusters, the result output including at least one of

a title and a snippet for one of the relevant documents in the cluster and a title for

another one or more of the relevant documents in the cluster (i.e. *"Now, in use the requestor*

(user) formulates a query as a set T of words, which should appear in the retrieved documents. The

Dialog Control module 300 replies in two steps: (i) It retrieves all documents DOC(T) which include words

from T. (ii) It groups the retrieved documents into similarity clusters and returns to the user standard

patterns of these groups." The preceding text clearly indicates that the Dialog Control module is the

graphical user interface that shows the result output for each cluster and at least one of a title and a

snippet for one of the relevant documents are types of words that should appear in the retrieved

documents.)(page 7, paragraphs 127-129).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

to the method wherein the presenting the clusters includes: forming a result output for

each of the clusters, the result output including at least one of a title and a snippet for

one of the relevant documents in the cluster and a title for another one or more of the

relevant documents in the cluster with the motivation to search by a specific, user-

defined geographical area. (Shultz, page 1, paragraph 8).

As per claim 26, Shultz does not explicitly teach the method wherein the

presenting the clusters includes: forming a result output for each of the clusters, the

result output including a name of a business or organization and a title for one or more

of the relevant documents in the cluster.

Michalewicz teaches the method wherein the presenting the clusters includes:

forming a result output for each of the clusters, the result output including a name of a

business or organization and a title for one or more of the relevant documents in the

cluster (i.e. *"Now, in use the requestor (user) formulates a query as a set T of words, which should*

appear in the retrieved documents. The Dialog Control module 300 replies in two steps: (i) It retrieves all

documents DOC(T) which include words from T. (ii) It groups the retrieved documents into similarity

clusters and returns to the user standard patterns of these groups." The preceding text clearly indicates

that the Dialog Control module is the graphical user interface that shows the result output for each cluster

and the business or organization and a title are types of words that should appear in the retrieved

documents.)(page 7, paragraphs 127-129).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

to the method wherein the presenting the clusters includes: forming a result output for

each of the clusters, the result output including a name of a business or organization

and a title for one or more of the relevant documents in the cluster with the motivation to

search by a specific, user-defined geographical area. (Shultz, page 1, paragraph 8).

As per claim 31, Schultz teaches the method wherein the at least one portion of

the telephone number includes at least one of an area code and a prefix associated with

the telephone number *(i.e. "In yet another aspect of the present invention, the method may also*

include: identifying multiple search results corresponding to the specified geographic area, and sorting the

search results utilizing at least one sorting criterion selected from the group comprising: distance from a

selected geographic location, time, price, and alphabetical order, and wherein the query is at least one

entity criterion chosen from the group comprising name, brand name, product type, product category,

service name, service category, business name, event, event forum, price, time, and/or combinations

thereof. In certain embodiments of the invention, the specified geographic area is selected from the group

comprising distance from a zip code, distance from an area code, distance from a telephone exchange

area, distance from a state, distance from longitudinal and latitudinal coordinates, distance from state

planar coordinates, a geometric corridor, distance from a unified geocoding system coordinate, and/or

combinations thereof." The preceding text clearly indicates that at least a portion of the telephone number

includes one of an area code is the area code, which is a prefix of the telephone exchange area. That is,

a part of the telephone number may be used as part of the geographical identifier.)(page 2, paragraph

18).

7.   Claims 15, 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Schultz et al (U.S. Pat. Pub. 2003/0061211 and known hereinafter as Shultz). in

view of Michalewicz et al (U.S. Pat. Pub. 2002/0042789 and known hereinafter as

Michalewicz) and in further view of Rubenczyk et al (U.S. Patent Pub. No.

2003/0217052 and known hereinafter as Rubenczyk).

As per claim 15 and 23, Shultz and Michalewicz do not explicitly teach the

method wherein the relevancy factor for one of the relevant documents refers to at least

one of a number of the one or more keywords present in the one of the relevant

documents and how prominently the one or more keywords appear in the one of the

relevant documents.

Rubenczyk teaches the method wherein the relevancy factor for one of the

relevant documents refers to at least one of a number of the one or more keywords

present in the one of the relevant documents and how prominently the one or more

keywords appear in the one of the relevant documents (i.e. *"A ranker 30 provides a numerical*

value to describe the overall level of match between the query and each data item, i.e. it assesses the

relevance of data-items to the query." The preceding text clearly indicates that at least one of a number of

one or more keywords present in one of the relevant documents and how prominently the one or more

keywords appear is the overall level of match between the query and each data item.)(page 13,

paragraph 420).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

and further modify the teachings of Shultz and Michalewicz with the teachings of

Rubenczyk to include the method wherein the relevancy factor for one of the relevant

documents refers to at least one of a number of the one or more keywords present in

the one of the relevant documents and how prominently the one or more keywords

appear in the one of the relevant documents with the motivation to search by a specific, user-defined geographical area. (Shultz, page 1, paragraph 8).

As per claim 20, Shultz and Michalewicz do not explicitly teach the method wherein the presenting the clusters includes: generating scores for the relevant documents within each of the clusters, and sorting the relevant documents within each of the clusters based, at least in part, on the scores.

Rubenczyk teaches the method wherein the presenting the clusters includes: generating scores for the relevant documents within each of the clusters (i.e. *"A ranker 30 provides a numerical value to describe the overall level of match between the query and each data item, i.e. it assesses the relevance of data-items to the query."* The preceding text clearly indicates that generating scores is the numerical value to each data item and relevant documents is the relevance of the data-items.)(page 13, paragraph 420), and sorting the relevant documents within each of the clusters based, at least in part, on the scores (i.e. *"The retrieved items can be presented either as an unorganized set or as an ordered list, sorted by some meta-data criterion such as date, author or price, or, more to the point, by the item's rank score (from best to poorest) that allegedly measures its closeness to the user request."* The preceding text clearly indicates that scores is a meta-data criterion that can sort the relevant documents within each of the clusters and the clusters are the retrieved items.)(page 2, paragraph 30).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz and further modify the teachings of Shultz and Michalewicz with the teachings of Rubenczyk to include the method wherein the presenting the clusters includes: generating scores for the relevant documents within each of the clusters, and sorting

the relevant documents within each of the clusters based, at least in part, on the scores

with the motivation to search by a specific, user-defined geographical area. (Shultz, page

1, paragraph 8).

As per claim 21, Shultz and Michalewicz do not explicitly teach the method

wherein the presenting the clusters includes: ranking the clusters based on at least one

of a distance factor and a relevancy factor, and sorting the clusters based, at least in

part, on the ranking.

Rubenczyk teaches the method wherein the presenting the clusters includes:

ranking the clusters based on at least one of a distance factor and a relevancy factor

(i.e. *"A ranker 30 provides a numerical value to describe the overall level of match between the query and

each data item, i.e. it assesses the relevance of data-items to the query."* The preceding text clearly

indicates that distance and relevance factors are a type of ranker that provides a numerical value to the

data-items, which are the clusters.)(page 13, paragraph 420), and sorting the clusters based, at

least in part, on the ranking (i.e. *"The retrieved items can be presented either as an unorganized set

or as an ordered list, sorted by some meta-data criterion such as date, author or price, or, more to the

point, by the item's rank score (from best to poorest) that allegedly measures its closeness to the user

request."* The preceding text clearly indicates that ranking is a meta-data criterion that can sort the

relevant documents within each of the clusters and the clusters are the retrieved items.)(page 2,

paragraph 30).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

and further modify the teachings of Shultz and Michalewicz with the teachings of

Rubenczyk to include the method wherein the presenting the clusters includes: ranking

the clusters based on at least one of a distance factor and a relevancy factor, and

sorting the clusters based, at least in part, on the ranking with the motivation to search

by a specific, user-defined geographical area. (Shultz, page 1, paragraph 8).

As per claim 22, Shultz does not explicitly teach the method wherein the distance

factor is distance that an address is from a geographical center of the area of interest.

Michalewicz teaches the method wherein the distance factor for one of the

clusters refers to a distance that an address associated with the one cluster is from a

geographic center of the area of interest (i.e. "The retrieved documents are divided into subsets

of similar documents, where each subset of the subsets of similar documents is described in terms of a

subset pattern." The preceding text clearly indicates that the distance factor is an instance of a subset

pattern, in which that type of a subset pattern is contained in the cluster.)(page 3, paragraph 33).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

to include the method wherein the distance factor for one of the clusters refers to a

distance that an address associated with the one cluster is from a geographic center of

the area of interest with the motivation to search by a specific, user-defined

geographical area. (Shultz, page 1, paragraph 8).

As per claim 24, Shultz and Michalewicz do not explicitly teach the method

wherein the presenting the clusters further includes: weighting the distance factor and

the relevancy factor differently based, at least in part, on the search query.

Rubenczyk teaches the method wherein the presenting the clusters further

includes: weighting the distance factor and the relevancy factor differently based, at

least in part, on the search query (i.e. *"Each node in a hierarchy represents a potential class, it*

may have query terms associated with it and may be linked to a set of domain data items which may be

ranked using weighting values." The preceding text clearly indicates that the distance and relevancy

factors are a type of weighting values based on the search query, which is the query.)(page 14,

paragraph 427).

It would have been obvious to a person of ordinary skill in the art at the time of

Applicant's invention to modify the teachings of Shultz with the teachings of Michalewicz

and further modify the teachings of Shultz and Michalewicz with the teachings of

Rubenczyk to include the method wherein the presenting the clusters further includes:

weighting the distance factor and the relevancy factor differently based, at least in part,

on the search query with the motivation to search by a specific, user-defined

geographical area. (Shultz, page 1, paragraph 8).

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Farhan M. Syed whose telephone number is 571-272-

7191. The examiner can normally be reached on 8:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

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